



PATENT
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JUL 24 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Discher, *et al.*

TECH CENTER 1600/2900

Application No.: 09/460,605

Group Art Unit: 1615

Filed: 12/14/99

Examiner: G. Kishore

Title: POLYMERSOMES AND RELATED ENCAPSULATING MEMBRANES

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Beet
8-13-03

Sir:

AMENDMENT AND RESPONSE

The Amendment and Response is timely filed with a 1-month extension of time and a Request for Continued Examination in response to the Office Action dated March 21, 2003.

In the Claims:

221
1. (Currently Amended) A polymersome vesicle comprising a semi-permeable, thin-walled encapsulating membrane, wherein the membrane is formed in an aqueous solution without the use of organic solvent, and wherein the membrane comprises one or more wholly synthetic (non-peptide super-amphiphilic molecules) that are polymeric, having a number average molecular weight ≥ 1400 , and wherein the copolymer directly self assembles into vesicles due to amphiphilicity and without need for post-assembly polymerization or crosslinking.

2. (Previously Amended) The polymersome vesicle of claim 1, wherein at least one super-amphiphile molecule is a block copolymer.

3. (Currently Amended) The polymersome vesicle of claim 2, wherein the vesicles remain intact upon exposure to (i) organic solvent, (ii) boiling water, or (iii) (dehydration in air or rehydration in aqueous solution.)